REMARKS

Reconsideration of the above-identified patent application in view of the amendment above and the remarks below is respectfully requested.

Claims 56-57 have been canceled in this paper. Claims 1 and 16 have been amended in this paper. No new claims have been added in this paper. Therefore, claims 1, 4-9, 11-18, 21-26, 28-31 and 58 are pending and are under active consideration.

Applicant duly notes the Patent Office's comments regarding the lack of formal drawings in the subject application. As required by the Patent Office, once the subject application is allowed, Applicant will submit formal drawings.

Claims 1, 4-9, 11-18, 21-26, 28-31 and 56-58 stand rejected under 35 U.S.C. 103(a) "as being unpatentable over Applicant's admitted prior art in view of McCurry et al. (US 6391415), together with the following additional observations." In support of the rejection, the Patent Office states the following:

> Applicants' argument "none of the prior art teaches or suggests a heat-transfer label assembly that includes...a heat transfer label deposited directly onto the wax skim coat layer wherein **said heat-transfer label consists of one or more ink design layers**. McCurry et al...is limited to a heat-transfer label that includes, at a minimum, both a protective layer and a color coat layer, **the protective layer being positioned between the color coat layer and a release coating.**" has been carefully considered, but is not persuasive. First, the Examiner notes that while each of independent claims 1, 16 and newly added claim 58 recites a "heat-transfer label consisting of..."clause, independent claim 56 recites "heat-transfer label comprising..." clause. Second, the Examiner respectfully reminds (see Office action dated 10/29/2003, page 6) Applicant that Applicant appears to have admitted that most of the elements of the instantly claimed invention of a label assembly are known art (Specification, pages 1-5). Specifically, Applicant discloses that it is known art that heat-transfer labels are typically constructed as part of

a heat-transfer label assembly, with one or more heat-transfer labels printed on a removable carrier web (page 1, third paragraph). For example, Kingston in U.S. Patent No. 3,616,015, teaches that a wax release layer can be affixed to the paper sheet (carrier), and an ink design layer is printed on the wax release layer (wax skim coat) (see specification, page 1, bottom paragraph). Further, the cited reference by Kingston expressly shows in Fig. 1 an ink design layer being deposited directly on the wax layer. As such, it is the Examiner's position that Applicant's admitted prior art clearly teaches the heat transfer assembly as claimed, and Applicant's argument against McCurry individually for having a protective layer between the color coat layer (ink design layer) and a release coating (wax skim coat) is not persuasive. It should be noted that one cannot show non-obviousness by attacking references individually where the rejections are based on combinations of references.

With respect to Applicants' response arguing "The fact that McCurry et al. states that "the heat-activated, cross-linking agent may have an activation temperature down to about equal to the activation temperature of the adhesive and still perform satisfactory" should not be taken that McCurry et al. is suggesting that the activation temperature be lowered by adding a catalyst...Nothing in the passage in question suggests actively lowering the activation temperature by the addition of a catalyst." (Remarks, pages 12-13, bridging paragraph), the Examiner notes that whether McCurry actively suggests lowering the activation temperature or not is irrelevant, it should be noted that now Applicant appears to have also agreed that McCurry teaches the suitable temperature range as claimed.

Finally, the Examiner notes that the newly added claim 58 recites essentially the same subject matter as claim 1, while having a transition clause as "the heat-transfer label assembly consisting of". Since the admitted prior art clearly encompasses the assembly as claimed, as set forth above (e.g., Kingston), claim 58 is rejected as well.

Insofar as the present rejection pertains to claims 56 and 57, Applicant respectfully submits that the rejection is moot in view of Applicant's cancellation herein of claims 56 and 57. Insofar as the present rejection pertains to claims 1, 4-9, 11-18, 21-26, 28-31 and 58, Applicant respectfully traverses the rejection.

Before addressing the details of the rejection, Applicant believes it may be useful to briefly survey the art that is apparently the basis of the Patent Office's rejection. As noted in the present specification, one of the earliest types of heat-transfer label assemblies that was developed is disclosed in U.S. Patent No. 3,616,015 (hereinafter "Kingston"). The Kingston assembly comprises a paper backing 10, a wax transfer layer 11 coated onto paper backing 10, and a design 12 printed onto the exposed surface of wax transfer layer 11. Kingston teaches that design 12 is transferred from backing 10 to a receiving surface by rolling pressure from a heated surface at a temperature between about 250-600°F, for example 350°F. In effecting transfer, a portion of wax transfer layer 11 transfers with design 12. The transferred portion of wax transfer layer 11 tends to be uneven and cloudy, detracting from the attractiveness of the transferred image. Consequently, to improve the appearance of the transfer and to clarify the wax, Kingston exposes the transferred wax to jets of hot gas for a period of time to re-melt the wax.

Another type of heat-transfer label assembly is disclosed in the present specification and is referred to therein as a "skim-coat containing" heat-transfer label assembly. An example of such a label assembly is disclosed in U.S. Patent No. 6,099,944 and includes (a) a support portion in the form of a sheet of paper overcoated with a release layer of polyethyelene, (b) a skim coat of wax overcoated onto the polyethylene release layer and (c) a transfer portion, the transfer portion including a protective lacquer layer printed onto the wax skim coat, an ink layer printed onto the protective lacquer layer, and an adhesive layer printed onto the ink layer, as well as onto any exposed portions of the underlying protective lacquer layer and onto a surrounding area of the skim coat. Decoration of an article with the skim-coat containing label is typically performed by applying heat to the bottom of the support portion while the adhesive layer is pressed against the article. Once the

transfer portion has been applied to the article, the labeled article is then typically subjected to a post-heating step so that the protective lacquer layer and/or the adhesive layer, one or both of which typically comprise thermosetting resins, may be cured. (The ink layer of the above-described heat-transfer label assembly does not include a thermosetting resin.) Said post-heating step is typically performed by conveying the labeled articles through one or more industrial ovens to heat the articles to an elevated temperature, such as 400°F, for a particular amount of time, typically 15-20 minutes.

McCurry et al. relates to still another type of heat-transfer label assembly. The McCurry label assembly comprises a label carrier 14, which may be paper or extruded plastic film, such as polypropylene or polyester. A release finish 16, preferably of silicone, may be applied to the top surface of label carrier 14 for aiding in the transfer of the label to the substrate. A clear release coating 18 may be applied to the top of the release finish 16 to provide additional protection for the label after transfer. A protective clear coat layer 20, which includes a carboxylic acid functional resin and the balance water, is applied to the clear release coating 18. Hydrophobic fumed silica may be added to protective clear coat layer 20. A color coat layer 22, which includes a carboxylic acid functional resin, a hard solution, a soft emulsion, a colloidal dispersion and the balance water, is applied to the protective clear coat layer 20. A heat-activated cross-linking agent may be added to one or both of protective clear coat layer 20 and color coat layer 22 for improved water soak resistance. Preferably, the cross-linking agent has an activation temperature greater than the transfer temperature of the labeler to prevent cross-linking from occurring during normal label transfer. A heat-activated adhesive 26 is used to transfer the label from the label carrier to a substrate 12. A clear primer coat 24 may be added between adhesive 26 and color coat layer 22.

As best understood, the Patent Office is apparently contending that it would have been obvious to modify the Kingston label assembly by replacing Kingston design 12 with McCurry color coat layer 22. For at least the reasons discussed below, Applicant respectfully submits that there would have been no motivation for a person of ordinary skill in the art at the time of the invention to make the proposed modification. In addition, as will also be discussed below, Applicant respectfully submits that the proposed modification, even if made, still does not teach or suggest each and every limitation of the claimed invention.

First, with respect to the proposed replacement of Kingston design 12 with McCurry color coat layer 22, Applicant respectfully submits that the Patent Office has failed to give due weight to the stark and fundamental differences between the two types of label assemblies involved. One such clear difference between the two label assemblies is that, whereas the Kingston label assembly effects label transfer by virtue of a wax transfer layer that melts and splits when heated, the McCurry label assembly does not. Instead, as noted above, the McCurry label effects label transfer by virtue of a silicone release finish 16 that remains with the carrier. Nowhere in McCurry is any mention made of using a wax layer as a mechanism for effecting label transfer. Another clear difference between the two label assemblies is that, whereas the Kingston label assembly has a transfer portion that consists solely of design 12, the McCurry label assembly has a transfer portion that, at a minimum, requires **both** color coat layer 22 **and** protective clear coat layer 20. Consequently, in view of the above, one of ordinary skill in the art would not have had any reason to replace Kingston design 12 with McCurry color coat layer 22.

Furthermore, even if one were to make the modification proposed by the Patent Office, the resulting assembly still would not include each and every limitation of the claimed invention. This

is because, with respect to claims 1, 4-9, 11-15 and 58, Kingston does not teach or suggest, among other things, the combination of a wax **skim** coat and a heat-transfer label consisting of one or more ink design layers deposited directly onto the wax skim coat. The wax transfer layer of Kingston, while admittedly a wax layer, is not a wax **skim** coat. This distinction is significant. As explained in the present specification, a wax layer of the type employed in Kingston is a thick layer that serves a multitude of purposes. Such purposes include (i) providing a release between the ink layer and the carrier to permit transfer of the ink layer to the receiving substrate, (ii) providing a protective coating over the exposed surface of the transferred ink layer, and (iii) improving adhesion between the transferred ink layer and the receiving substrate. Because of the substantial thickness of the wax transfer layer employed in Kingston, the transferred portion of the Kingston wax transfer layer tends to be cloudy and thus detracts from the aesthetics of the transferred ink layer. For this reason, Kingston heats the transferred portion of the wax transfer layer until it melts, thereby improving the optical clarity of the transferred portion of the wax layer and improving its protective properties.

By contrast, a wax skim coat is a much thinner layer of wax, approximately 0.1-0.4 lbs/3000 ft^2 of carrier. In contrast with the wax transfer layer of the Kingston label, a wax skim coat is so thin as to be barely perceptible on a labeled object and does not require remelting to improve its optical clarity. The function of a wax skim coat is principally to improve the release between a label and its carrier and is not to provide protection to the underlying design or to adhere the underlying design to a substrate. In fact, because a wax skim coat is inadequate for such protective and/or adhesive purposes, label assemblies that include a wax skim coat also include one or both of a protective lacquer layer that is disposed over the transferred ink design and an adhesive layer that is disposed under the transferred ink design. In view of the above, one of ordinary skill in the art would not have

regarded the Kingston wax transfer layer as equivalent to or interchangeable with a wax skim coat - **without also including in the label a protective layer and/or an adhesive layer.**

Similarly, with respect to claims 16-18, 21-26, 28-31, one of ordinary skill in the art would not have been motivated to replace the Kingston wax transfer layer with a non-wax carrier as claimed as there would have been no expectation that such a label would perform adequately without also including a protective layer and/or an adhesive layer.

Finally, even if one were to make the proposed modification in which Kingston design 12 is replaced with McCurry color coat layer 22, the resulting assembly would still not teach or suggest the claimed element of a heat-activatable catalyst for catalyzing cross-linking within about 1-2 minutes after the ink design layer has been transferred to an article heated to a temperature of about 250°F-325°F. The Patent Office is apparently arguing that McCurry suggests the activation temperature claimed. However, the claims are directed to more than merely a temperature. The claims require the presence of a **heat-activatable catalyst** to catalyze cross-linking. Nowhere in McCurry is the use of a heat-activatable catalyst disclosed or suggested. The Patent Office has no basis for assuming that a heat-activatable catalyst is present for the lower range of activation temperatures since there are other factors (e.g., choice of cross-linker and/or other components of the layer) that may impact activation temperature. Moreover, as noted previously, McCurry specifically teaches away from lower activation temperatures.

Accordingly, for at least the above reasons, the foregoing rejection should be withdrawn.

In conclusion, it is respectfully submitted that the present application is in condition for allowance. Prompt and favorable action is earnestly solicited.

If there are any fees due in connection with the filing of this paper that are not accounted for, the Examiner is authorized to charge the fees to our Deposit Account No. 11-1755. If a fee is required for an extension of time under 37 C.F.R. 1.136 that is not accounted for already, such an extension of time is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on November 19, 2004

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